

Mr. Wray hath assured me, that those of Warwick-shire bled the 16th of November last past copiously ; and since the *Walnut*-tree also. And so much for matter of fact.

To what cause we may truly refer this Anomalous Bleeding, is not easie to say. For my part, I am not apt to think, that there is such a sudden and extemporary Ascent of Sap, at such time as these Trees are most dispos'd to bleed ; but rather that the Sap, in all parts of the Tree, is some ways notably alter'd in its temper and consistence : And this Bleeding by stress of weather may in these Trees probably be look'd upon as a violence done to their natures from an unkind Climate ; considering the *Walnut* and *Sycamore* as strangers, and not natives of England. 'Tis indeed true, there are many sorts of *English* Plants, which will bleed in Winter; but note also, that such Plants never refuse to do so at any time of the year, no more than a Man, who may bleed a vein when he pleaseth. But let the Hypothesis be what it will, I am perswaded, we shall have but dark and imperfect notions of the motion of the Jyces in Vegetables, until their true Texture be better discover'd. To conclude this subject, I now put these two Quæries ; 1. Whether the Jyce of Trees, whil'st alive and vegete, can properly be said, at any time of the year, to descend, or to be wanting in any part, or not to be therein in a much like quantity ? 2. What condition the Soil is of, where such Trees are planted, that shall either bleed or refuse to do so ; whether Sandy, as that of *Nottingham* ; or a wet Clay, as that of the two Trees, I have observ'd here at *York* ?

*An Extract of another Letter written by the same Gentleman, Mr. Wray, to the Publisher, of Febr. 8: h. 1671. Containing some Experiments about the Bleeding of the Sycamore, and other Trees; as also, a considerable Note of Pliny about the Mulberry-Tree.*

Concerning the Bleeding of the *Sycamore*, let me acquaint you with the following Experiment. The first instant it froze, the Wind at North; the Frost and Wind continued (some little Snow and rain falling) the 2d, 3d, 4th, 5th, 6th, until the 7th in the morning, when the Wind came about to the

the South-East, and the weather broke up a pace. The Sycamores bled not all this while, but the 7th about Noon all Trees of that kind bled very freely, both at the Twigs and Body, and I struck above a dozen.

At this same Critical season I was willing to repeat the Experiment upon other Trees; and to this end I forthwith struck the *Hawthorn*, *Hazel*, *Wild Rose*, *Goose berry-bush*, *Apple-tree*, *Cherry-tree*, *Blather-nut*, *Apricock*, *Cherry-Laurel*, *Vine*, *Walnut*; yet none bled but the last-named, and that faintly in comparison of the *sycamore*. This is consonant to our former Experiments: And if it did happen ( as I said in my former Letter, ) that these Sycamores bled not all this Winter afore at the wounds made the first of *November*, I do now think, that if new wounds had been still made at every break of Frost, some signes, at least of our *York-shire* bleeding, might have been discover'd before now. But *I* affirm no more, than *I* have seen and tried.

In all the Monuments of the Antients, collected by the great industry of *Pliny*, I find but few instances of this nature. Amongst those few, there is one that is registered with two or three remarkable circumstances to our purpose. He tells us, that the *Physitians* of old, when they had a mind to draw the Juyce of the *Mulberry-tree*, were wont to strike it skin-deep only, and that about two hours after Sun-rise. This Experiment is twice mentioned by him, and in both places as a strange *phænomenon*. We might make our Comment upon the places, but for this time are content only to transcribe the Texts. *Lib. 16. c. 38. Mirum; hic ( cortex ) in *Moro*, Medicis succum querentibus, ferè horâ diei secundâ, lapide incussus manat, altius fructus siccus videtur.* *Lib. 23. c. 7. Morra in *Ægypto* & *Cypro* sui generis, ut diximus, largosucco abundant, summo cortice desquamato, auctiore plagâ siccantur; mirabili naturâ.*

*Some Observations concerning the Variety of the Running of Sap in Trees, compared with a Weather glas; made in April, 1670. Together with some ways of ordering Birch-water: By Dr. E. Tonge.*

**I** Am this day very much confirmed in my apprehension, that Trees and other Plants, if we could contrive them, as I have

(but